

ABSTRACT

The invention provides a traction control system and sensor unit thereof which easily and highly accurately senses accelerations generated vertically, longitudinally and laterally in a wheel to control the drive of the vehicle. A sensor unit 100 provided with an acceleration sensor sensing accelerations generated in association with rotation in the X, Y and Z directions including the rotation direction is disposed in a body of rotation of a rotation mechanism section including each tire 300, and the sensing result, a digital value, is transmitted as digital data by use of radio wave. The digital data is received by a monitor apparatus 200 disposed in each tire house and is subjected to arithmetic processing. The acceleration value thus obtained is outputted to a drive control unit 700. Based on the acceleration value obtained and distortion characteristic data preliminarily stored, the drive control unit 700 estimates the amount of distortion of each tire, and based on the estimated amount of tire distortion and the sensing result of the number of rotations of each tire 300, controls a sub-throttle actuator 412 to drive a sub-throttle 416.